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Moreno

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[54] **INFRARED TOUCH SCREEN DEVICE FOR A VIDEO MONITOR**

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 556,098, Jul. 23, 1990, abandoned.

[51] **Int. Cl.**[5] **G09G 3/02**

[52] **U.S. Cl.** **340/712**; 340/706; 341/31

[58] **Field of Search** 340/706, 709, 712; 341/31; 250/221; 718/18, 19

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[57] **ABSTRACT**

An infrared touch screen device that is externally adaptable to a video monitor for serving as an input device to a computer connected to the monitor. A bezel is adapted to be releasably secured over a viewing end of a video monitor. A plurality of infrared emitters are disposed along the bezel to form a grid of vertical and horizontal infrared beams in the interior space of the bezel when the emitters are activated. A plurality of infrared sensors are disposed along the bezel. Each sensor is optically aligned with an oppositely disposed one of the emitters. An activating circuit is mounted on the bezel for sequentially activating, in a predetermined sequence, respective ones of the emitters. A scanning circuit is mounted on the bezel for sequentially scanning the sensors in a sequence corresponding to the predetermined sequence, the sensors each producing output signals corresponding to the presence and absence, respectively of an infrared beam emitted by an oppositely disposed infrared emitter. A communication device couples the output signals of the sensors to an input port of a computer connected to the monitor.

29 Claims, 24 Drawing Sheets